

ABSTRACT

A method for detecting smoke detector alarms comprises analyzing at least two parameters of ambient sound over a period of time to detect a temporal pattern of the alarm. In one embodiment, a series of samples are taken over a period of time sufficiently long to include at least one full period of a repeating sound pattern, and the two parameters are frequency and amplitude of the loudest sound in each sample. The algorithmic analysis may be triggered by a detection algorithm that utilizes a lower amount of power than the algorithmic analysis. In other embodiments, the detection apparatus is incorporated into a conventional smoke detector that will detect both smoke and an alarm from another detector. In another embodiment, a smoke detector includes a transceiver to transmit an activation signal to neighboring smoke detectors when a fire is detected and to receive an activation signal from neighboring detectors.